

XX. *Further Account of the Bos Frontalis* (p. 57).

By *Aylmer Bourke Lambert, Esq. F. R. S. V. P. L. S.*

Read February 7, 1804.

SINCE I presented to the Society the last account of the *Bos Frontalis*, or *Gyall* of India, Mr. Fleming, a gentleman who is just returned from that country, has very obligingly communicated to me the following further particulars relative to that animal. This account was transmitted to Mr. Fleming by Mr. Macrae, resident at Chittagong, in a letter dated March 22d 1802, and was accompanied with a drawing, by which it appears that the animal from which my figure (Tab. IV.) was taken was full-grown.

The *Gyall* is a species of cow peculiar to the mountains which form the eastern boundary of the province of Chittagong, where it is found running wild in the woods; and it is also reared as a domestic animal by the Kookies, or Lunclas, the inhabitants of those hills. It delights to live in the deepest jungles, feeding on the tender leaves and shoots of the brushwood; and is never met on the plains below, except when brought there. Such of them as have at any time been kept by the gentlemen at Chittagong have always preferred browsing among the thickets on the adjacent hills to feeding on the grass of the plains.

It is of a dull heavy appearance, yet of a form that indicates both strength and activity; and approaches nearly to that of the wild buffalo. Its head is set on like the buffalo's, and it carries it much in the same manner, with the nose projecting forward;

ward; but in the shape of the head it differs considerably from both the buffalo and cow, the head of the gyall being much shorter from the crown to the nose, but much broader between the horns than that of either. The withers and shoulders of the gyall rise higher in proportion than those of the buffalo or cow, and its tail is small and shorter, seldom falling lower than the bend of the ham. Its colour is in general brown, varying from a light to a deep shade: it has at times a white forehead and white legs, with a white belly and brush. The hair of the belly is invariably of a lighter colour than that of the back and flanks. The gyall calf is of a dull red colour, which gradually changes to a brown as it advances in age.

The female gyall receives the bull at the age of three years; her term of gestation is eleven months, when she brings forth, and does not again admit the male until the second year thereafter; thus producing a calf once in three years only. So long an interval between each birth must tend to make the species so rare. In the length of time she goes with young, as well as in that between each conception, the gyall differs from the buffalo and cow. The gyall does not give much milk, but what she yields is nearly as rich as the cream of other milk. The calf sucks his dam for eight or nine months, when he is capable of supporting himself. The Kookies tie up the calf until he is sufficiently strong to do so.

The gyalls live to the age of from fifteen to twenty years: they lose their sight as they grow old, and are subject to a disease of the hoof, which often proves fatal at an early age. When the Kookie considers the disease beyond the hope of cure, he kills the gyall and eats the flesh, which constitutes his first article of luxury.

The Kookies have a very simple method of catching the wild gyalls. It is as follows: On discovering a herd of wild gyalls in  
the

the jungles, they prepare a number of balls, of the size of a man's head, composed of a particular kind of earth, salt, and cotton; they then drive their tame gyalls towards the wild ones, when the two soon meet and assimilate into one herd, the males of the one attaching themselves to the females of the other, and *vice versa*. The Kookies now scatter their balls over such parts of the jungle as they think the herd most likely to pass, and watch its motions. The gyalls, on meeting these balls as they go along, are attracted by their appearance and smell, and begin to lick them with their tongues; and relishing the taste of the salt, and the particular earth composing them, they never quit the place until all the balls are destroyed. The Kookies having observed the gyalls to have once tasted their balls, prepare what they consider a sufficient supply of them to answer the intended purpose, and as the gyalls lick them up they throw down more; and to prevent their being so readily destroyed they mix the cotton with the earth and salt. This process generally goes on for three changes of the moon, or for a month and a half; during which time the tame and wild gyalls are always together licking the *decoy* balls; and the Kookie, after the first day or two of their being so, makes his appearance at such a distance as not to alarm the wild ones. By degrees he approaches nearer and nearer, until at length the sight of him has become so familiar that he can advance to stroke his tame gyalls on the back and neck without frightening away the wild ones. He next extends his hand to them, and caresses them also; at the same time giving them plenty of his decoy balls to lick; and thus in the short space of time mentioned he is able to drive them along with his tame ones to his parrah, or village, without the least exertion of force or coercion: and so attached do the gyalls become to the parrah, that when the Kookies migrate from one place

place to another they always find it necessary to set fire to the huts they are about to abandon, lest the gyalls should return to them from the new grounds, were they left standing. Experience taught the Kookie the necessity of thus destroying his huts.

It is a fact worthy of remark, that the new and full moon are the periods at which the Kookies generally commence their operation of catching the wild gyalls, from having observed that at these changes the two sexes are most inclined to associate. The same observation has been often made to me by our elephant catchers.